

CLAIMS

1. A developing device comprising: a stirring roller having stirring blades for stirring a developer; a developing roller for transferring the developer to an electrostatic latent image; a control member for controlling the amount of developer transferred to the electrostatic latent image by said developing roller; and a reflux plate for flowing back excess developer by controlling of said control member to said stirring roller; wherein one end portion of said reflux plate is disposed in the vicinity of the outer periphery of said stirring roller, and part of the developer stirred by said stirring roller flies toward said reflux plate, characterized in that

said one end portion of said reflux plate is disposed at a position remote from said stirring roller over a distance greater than the maximum fly distance of the developer provided by rotation of said stirring roller.

2. The developing device as set forth in claim 1, characterized in that

said one end portion of said reflux plate is disposed above in the vertical direction of said stirring roller, and

said maximum fly distance is the maximum fly distance in the vertical direction.

3. A developing device comprising: a stirring roller having

stirring blades for stirring a developer; a developing roller for transferring the developer to an electrostatic latent image; a control member for controlling the amount of developer transferred to the electrostatic latent image by said developing roller; and a reflux plate for flowing back excess developer by controlling of said control member to said stirring roller; wherein one end portion of said reflux plate is disposed in the vicinity of the outer periphery of said stirring roller, characterized in that

said one end portion of said reflux plate is disposed within a predetermined range from a position where a plane passing through the rotation center axis of said stirring roller and crossing said reflux plate at right angles intersects said reflux plate.

4. The developing device as set forth in claim 3, characterized in that said one end portion of said reflux plate is disposed at a position where a plane passing through the rotation center axis of said stirring roller and crossing said reflux plate at right angles intersects said reflux plate.

5. The developing device as set forth in any one of claims 1 through 4, characterized in that an inclination angle of said reflux plate is larger than an angle of repose.

6. The developing device as set forth in any one of claims 1 through 5, characterized by further comprising a developer

supplying portion from which the developer is supplied, wherein said stirring roller is disposed between said developer supplying portion and said developing roller, and said one end portion of said reflux plate is disposed in the vicinity of the outer periphery on said developer supplying portion side of said stirring roller.

7. The developing device as set forth in any one of claims 1 through 6, characterized in that said stirring roller stirs the developer containing magnetic powder having an average grain diameter of 65 μm or smaller and toner having an average grain diameter of 7.5 μm or smaller.

8. An image forming device characterized by comprising:
a developing device for developing an electrostatic latent image according to any one of claims 1 through 7; and
an image forming unit for forming on a sheet an image developed by said developing device.